

REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested. Claims 23-44 remain pending, wherein it is proposed to amend claim 38 into independent form.

Applicants note with appreciation the Examiner's indication that claim 38 contains allowable subject matter. Accordingly, it is proposed to amend claim 38 into independent form by including all of the elements of claims 23, 36 and 37 from which claim 38 depends. Because this amendment places claim 38 into allowable form, this amendment does not raise new issues requiring further search or examination.

Claims 23-37, 39 and 41-44 are rejected under 35 U.S.C. § 103(a) for obviousness in view of the combination of U.S. Patent No. 6,021,375 to Urai et al. ("Urai") and U.S. Patent No. 4,048,613 to Ito et al. ("Ito"). Claim 40 is rejected under 35 U.S.C. § 103(a) for obviousness in view of the combination of Urai, Ito and U.S. Patent No. 6,292,753 to Sugimoto et al. ("Sugimoto"). These grounds of rejection are respectfully traversed.

The combination of Urai and Ito does not render Applicants' claim 23 obvious because the combination does not disclose or suggest the following claim elements:

determining whether a predefined warning condition is fulfilled based on said instantaneous driving situation of said first vehicle, and on said predefined emergency braking deceleration;

the warning condition includes, as target conditions, a predefined target safety distance and a predefined target relative speed between the first and second vehicles, which are to be attained after said automatic emergency braking process is completed.

Urai discloses a system that employs calculated distance threshold values to select a particular deceleration value. The Figure 6 embodiment of Urai uses four different distance threshold values, L_s , L_{b1} , L_{b2} and L_b . L_s is based on (i) differences in velocity between the subject vehicle and the obstacle; and (ii) differences in acceleration between the subject vehicle and the obstacle. L_{b1} , L_{b2} and L_b are based on (i) differences in velocity between the subject vehicle and the obstacle; and a difference between the automatic braking deceleration a_b and the acceleration the obstacle a_1 .

In contrast to the distance threshold values calculated by Urai, Applicants' claim 23 involves determining fulfillment of a predefined warning condition based on (i) the instantaneous driving situation of said first vehicle; and (ii) the predefined emergency braking deceleration. Applicants' claim 23 further recites that the instantaneous driving situation is based on (a) a registered acceleration of the first vehicle; and (b) a registered current acceleration between the first and

second vehicles. Accordingly, fulfillment of the predefined warning condition in Applicants' claim 23 is based on:

(i) the instantaneous driving situation of said first vehicle, which is based on:

(a) a registered acceleration of the first vehicle;

(b) a registered current acceleration between the first and second vehicles; and

(ii) the predefined emergency braking deceleration.

None of the four distance threshold values, L_s , L_{b1} , L_{b2} and L_b , are calculated based on the four elements described above. Specifically, the calculation of L_s does not account for (ii) a predefined emergency braking deceleration. The calculation of L_{b1} , L_{b2} and L_b does not account for (a) a registered acceleration of the first vehicle and (b) a registered current acceleration between the first and second vehicles. Instead, the calculation of L_{b1} , L_{b2} and L_b only considers the automatic braking deceleration of the first vehicle a_b and the acceleration of the second vehicle a_1 .

Regarding the warning condition itself, Applicants' claim 23 recites that the target condition includes:

(i) a predefined target safety distance after said automatic emergency braking process is completed; and

(ii) a predefined target relative speed between the first and second vehicles after said automatic emergency braking process is completed.

In other words, both of the parameters above are based on values “after said emergency braking process is completed.” Urai includes no such corresponding disclosure. Instead, Urai only discusses that the braking deceleration values are used to slow or stop the vehicle. Thus, there is nothing in Urai disclosing or suggesting (i) a predefined target safety distance *after said automatic emergency braking process is completed*, and (ii) a predefined target relative speed between the first and second vehicles *after said automatic emergency braking process is completed*.

Nevertheless, the Office Action relies upon the formula for determining distance threshold value L_s as disclosing or suggesting the target conditions. As discussed above, L_s is based on the *current* acceleration and velocity values of the subject vehicle and the obstacle. There is nothing in Urai disclosing or suggesting that these *current* values somehow reflect values *after said automatic emergency braking process is completed*.

Ito does not remedy the above-identified deficiencies of Urai with respect to claim 23. Accordingly, the combination of Urai and Ito does not render this

claim obvious. Claims 24-37, 39 and 41-43 are patentably distinguishable at least by virtue of their dependency from claim 23. Claim 44 recites an apparatus with similar elements to those discussed above with regard to claim 23, and is patentably distinguishable over the current grounds of rejection for similar reasons.

Moreover, the combination of Urai and Ito does not disclose or suggest that “the permanently predefined target relative speed between the vehicle and vehicle traveling in front has a value of approximately zero” as recited in Applicants’ claim 30. Instead, Urai discloses that “[i]n order to avoid contact by braking, the vehicle speed of the subject vehicle 10 *should be made less than* the moving speed of the obstacle 100.”¹ Thus, Urai does not disclose or suggest that “the permanently predefined target relative speed between the vehicle and vehicle traveling in front has a value of approximately zero.” Ito does not remedy this deficiency of Urai. Accordingly, the combination of Urai and Ito does not render claim 30 obvious.

Claim 40 depends from claim 23. As discussed above, the combination of Urai and Ito does not disclose or suggest all of the elements of claim 23. It is respectfully submitted that Sugimoto does not remedy the above-identified deficiencies of the combination of Urai and Ito with respect to claim 23.

¹ Column 5, lines 48-50, emphasis added.

Accordingly, the combination of Urai, Ito and Sugimoto does not render claim 40 obvious.

For at least those reasons set forth above, it is respectfully requested that the obviousness rejections of claims 23-37 and 39-44 be withdrawn.

If there are any questions regarding this response or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket # 095309.56052US).

Respectfully submitted,

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